

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Withdrawn) Method for the detection and determination of GnRH receptors on tumor cells originating in brain and/or nervous system and/or the meninges and/or Kaposi sarcoma comprising contacting said cells with a ligand for a GnRH receptor and determining if binding has occurred.
2. (Withdrawn) Method according to claim 1 characterized in that said ligand is an antibody.
3. (Withdrawn) Method according to claim 1 or 2 characterized in that said ligand is labeled.
4. (Withdrawn) Method according to claim 1 characterized in that the bound ligand is determined with labeled anti-ligand, preferably an antibody.
5. (Withdrawn) Method for the detection and determination of GnRH receptors on degenerate cells of a tumor originating in brain and/or nervous system and/or the meninges comprising:
  - a) homogenizing peroperatively collected tumor tissue;
  - b) separating the membrane fraction;
  - c) determining the protein concentration in the membrane fraction of b); and

d) determining the concentration of GnRH receptors in the membrane fraction of b) to diagnose the above tumors.

6) (Withdrawn) Method according to claim 1 wherein the tissue is derived from a Glioblastoma multiforme, medulloblastoma, pinealoma, neuroblastoma, craniopharyngeoma, meningioma, chordoma, Ewing sarcoma, malignant melanoma, or Kaposi sarcoma.

7) (Withdrawn) Diagnostic kit for the practice of the method according to claims 1 to 6 comprising a ligand for a GnRH receptor.

8) (Withdrawn) Diagnostic kit according to claim 7 for the detection of GnRH receptors for immunohistological diagnostics, for monitoring of the therapy, aftercare, early recognition of recidivation, and early recognition of tumors originating in brain and/or nervous system and/or the meninges comprising either a GnRH agonist or a monoclonal or polyclonal antibody against GnRH receptors, or one or more specific primer for GnRH receptors, e.g. for the amplification of GnRH receptor DNA in a reverse transcriptase polymerase chain reaction (RT-PCR).

9. (Withdrawn) Diagnostic kit according to claim 3 comprising the use of the method according to claims 7 or 8.

10. (Canceled)

11. (Canceled)

12. (Withdrawn) Conjugate of a GnRH agonist or GnRH antagonist to melatonin or to a melatonin analogue.

13. (Canceled)

14. (Currently amended) A method for decreasing cellular replication of a GnRH-receptor positive tumor selected from the group consisting of a tumor originating in one or more of the brain, nervous system or meninges of the brain; Ewing sarcoma; Kaposi sarcoma; and malignant melanoma, said method comprising administering to a subject a therapeutically effective replication decreasing amount of one or more of a GnRH agonist or GnRH antagonist, said GnRH agonist or GnRH antagonist being a GnRH analogue, so as to decrease cellular replication of the GnRH-receptor positive tumor.

15. (Currently amended) A The method for decreasing cellular replication of a of claim 14 wherein the GnRH-receptor positive tumor is Kaposi sarcoma comprising administering to a subject a therapeutically effective amount of one or more of a GnRH agonist or GnRH antagonist.

16. (Currently amended) A The method for decreasing cellular replication of a of claim 14 wherein the GnRH-receptor positive tumor is Glioblastoma multiforme, medulloblastoma, pinealoma, neuroblastoma, craniopharyngeoma, meningioma, chordoma, Ewing sarcoma, malignant melanoma, or Kaposi sarcoma comprising administering to a subject a therapeutically effective amount of one or more of a GnRH agonist or GnRH antagonist.

17. (Previously presented) The method according to claim 14, wherein the GnRH agonists or GnRH antagonists are used in combination with a cytotoxic substance.

18. (New) The method of claim 14 wherein the GnRH-receptor positive tumor is malignant melanoma.

19. (New) A method for decreasing cellular replication of a GnRH-receptor positive tumor selected from the group consisting of a tumor originating in one or more of the brain, nervous system or meninges of the brain; Ewing sarcoma; Kaposi sarcoma; and malignant melanoma, said method comprising administering to a subject a replication decreasing amount of a GnRH agonist or GnRH antagonist coupled to a cytotoxic substance, said GnRH agonist or GnRH antagonist being a GnRH analogue, so as to decrease cellular replication of the GnRH-receptor positive tumor.

20. (New) The method of claim 19 wherein the GnRH-receptor positive tumor is malignant melanoma.